WHAT IS CLAIMED IS:

1. A method for treating diseases and conditions that change the spacial relationship between a first vertebral body of a first vertebra, a second vertebral body of a second vertebra adjacent the first vertebra, and a first intervertebral disk between the first vertebral body and the second vertebral body, or that cause instability of the vertebral column, or both, and a method that allows the surgeon to access the first intervertebral disk to restore a more normal three-dimensional configuration of the first intervertebral disk between the first vertebral body and the second vertebral body, the method comprising:

a) selecting a patient;

b) obtaining transpedicular access to the first intervertebral disk by creating a channel through a pedicle of the first vertebra; and

c) removing at least part of the first intervertebral disk through the transpedicular access.

2. The method of claim 1, where the patient selected has one or more than one change in the spacial relationship between the first vertebral body of the first vertebra, the second vertebral body of the second vertebra adjacent the first vertebral body, and the first intervertebral disk between the first vertebral body and the second vertebral body; and

where the change in the spacial relationship causes one or more than one symptom selected from the group consisting of pain, numbness and loss of function, or where the change in the spacial relationship causes real or potential instability, or a combination of the preceding.

3. The method of claim 1, where the patient has one or more than one disease or condition selected from the group consisting of degeneration of the first intervertebral disk, herniation of the first intervertebral disk, degeneration and herniation of the first intervertebral disk, degenerative scoliosis, an infection of the first intervertebral disk, an infection of the first vertebral body, an infection of the second vertebral body, a space occupying lesions, spinal stenosis, spondylosis, spondylolisthesis, vertebral instability, a vertebral fracture, and a

surgical manipulation of the vertebral column.

4. The method of claim 1, where obtaining transpedicular access to the first intervertebral disk is accomplished bilaterally.

5. The method of claim 1, where obtaining transpedicular access to the first intervertebral disk comprises inserting a bone biopsy needle through one pedicle of the first vertebra to create the channel.

6. The method of claim 1, where obtaining transpedicular access to the first intervertebral disk comprises inserting a non-flexible bone drill through one pedicle of the first vertebra to create or enlarge the channel.

7. The method of claim 1, further comprising inserting a sheath into the channel.

8. The method of claim 1, further comprising inserting a retainer tube into the channel.

9. The method of claim 1, further comprising inserting a first flexible drill through the channel and actuating the flexible drill, thereby extending the channel through the first vertebral body and into the intervertebral disk.

10. The method of claim 9, where the first flexible drill is a flexible drill comprising a drilling tip, and capable of orienting the drilling tip at a predetermined position after accessing a material to be drilled through a substantially straight passage having a long axis;

where the predetermined position is at least 10° off of the long axis of the substantially straight passage.

11. The method of claim 9, where the first flexible drill is a flexible drill comprising a guiding tube having a proximal segment having a central axis and a distal segment having a distal end; and

a drilling tip is connected to the distal end of the distal segment;

where the guiding tube comprises a substance that has been processed to return to a shape where the distal segment has a radius of curvature sufficient to cause the drilling tip at the end of the distal segment to orient at between about 10° and 150° off of the central axis of the proximal segment when the guiding tube is not subject to distortion.

12. The method of claim 9, where the first flexible drill is a flexible drill comprising a lower sub-assembly connected to an upper sub-assembly;

where the lower sub-assembly comprises a spin luer lock, a retainer tube, a piston anchor, a piston level, a piston, a distal O-ring and a proximal O-ring; and

where the upper sub-assembly comprises a drilling tip, guiding tube, a barrel knob, a barrel, a threaded adapter, a liner, a bearing housing, a flexible shaft, a distal bearing, a proximal bearing, a collet, a bearing cap and a motor receptacle;

where the guiding tube comprising a proximal segment having a central axis and a distal segment having a distal end;

where the drilling tip is connected to the distal end of the distal segment; and

where the guiding tube comprises a substance that has been processed to return to a shape where the distal segment has a radius of curvature sufficient to cause the drilling tip at the end of the distal segment to orient at between about 10° and 150° off of the central axis of the proximal segment when the guiding tube is not subject to distortion.

13. The method of claim 9, further comprising inserting a second flexible drill through the channel and actuating the flexible drill, thereby enlarging the channel.

14. The method of claim 13, where the second flexible drill is a flexible drill comprising a drilling tip, and capable of orienting the drilling tip at a predetermined position after accessing a material to be drilled through a substantially straight passage having a long axis;

where the predetermined position is at least 10° off of the long axis of the substantially straight passage.

15. The method of claim 13, where the second flexible drill is a flexible drill comprising a guiding tube having a proximal segment having a central axis and a distal segment having a distal end; and

a drilling tip is connected to the distal end of the distal segment;

where the guiding tube comprises a substance that has been processed to return to a

shape where the distal segment has a radius of curvature sufficient to cause the drilling tip at the end of the distal segment to orient at between about 10° and 150° off of the central axis of the proximal segment when the guiding tube is not subject to distortion.

16. The method of claim 13, where the second flexible drill is a flexible drill comprising a lower sub-assembly connected to an upper sub-assembly;

where the lower sub-assembly comprises a spin luer lock, a retainer tube, a piston anchor, a piston level, a piston, a distal O-ring and a proximal O-ring; and

where the upper sub-assembly comprises a drilling tip, guiding tube, a barrel knob, a barrel, a threaded adapter, a liner, a bearing housing, a flexible shaft, a distal bearing, a proximal bearing, a collet, a bearing cap and a motor receptacle;

where the guiding tube comprising a proximal segment having a central axis and a distal segment having a distal end;

where the drilling tip is connected to the distal end of the distal segment; and

where the guiding tube comprises a substance that has been processed to return to a shape where the distal segment has a radius of curvature sufficient to cause the drilling tip at the end of the distal segment to orient at between about 10° and 150° off of the central axis of the proximal segment when the guiding tube is not subject to distortion.

17. The method of claim 1, further comprising inserting a guidewire into the channel for use as a support structure.

18. The method of claim 1, further comprising performing at least part of the method using an over-the-wire technique.

19. The method of claim 1, further comprising removing at least part of the first intervertebral disk using a cutting device.

20. The method of claim 19, where the cutting device is a cutting device comprising a blade connected to the distal end of a flexible shaft;

where the cutting device can be inserted into a material to be cut after accessing the material through a channel comprising a substantially straight proximal section having a long

axis and a distal section having a long axis; and

where the long axis of the distal section is curved, or where the long axis of the distal section is substantially straight but varies at least about 10° off of the long axis of the proximal section.

21. The method of claim 19, where the cutting device is a cutting device comprising:

a) a pivoting blade connected to the distal end of a flexible shaft; and

b) a locking sleeve surrounding at least part of the flexible shaft;

where the blade pivots from a first, insertion position to a second, cutting position;

where the blade has one or more than one notch;

where the locking sleeve can be advanced distally and retracted proximally; and

where advancement distally causes the locking sleeve to engage with the one or more than one notch, thereby locking the blade into the cutting position, and retraction proximally causes the locking sleeve to disengage from the one or more than one notch, thereby unlocking the blade from the cutting position.

22 The method of claim 1, further comprising removing at least part of the first intervertebral disk using an enucleation device.

23. The method of claim 22, where the enucleation device is an enucleation device comprising:

a) a proximal end;

b) a distal end comprising a cutting cap comprising a plurality of deformable blades; and

c) a shaft between the proximal end and the cutting cap;

where the plurality of deformable blades can cut material in a space when the blades not deformed, after accessing the space through a passage while the blades are deformed; and

where the passage has a smaller cross-sectional area than the lateral cross-sectional area of the undeformed blades while the blades are cutting the material.

24. The method of claim 1, further comprising removing at least part of an endplate of

the first vertebral body or an endplate of the second vertebral body.

25. The method of claim 1, further comprising inserting a fusion agent containment device into the intervertebral disk, and at least partly filling the fusion agent containment device with a fusion agent.

26. The method of claim 25, where the fusion agent containment device is a fusion agent containment device for containing a fusion agent comprising a band or mesh of thin, biocompatible, deformable material having shape memory configured to expand into a substantially circular or oval shape when undeformed.

27. The method of claim 1, further comprising inserting a distraction system into the intervertebral disk, and allowing the distraction system to distract the first vertebral body from the second vertebral body.

28. The method of claim 27, where the distraction system is a distraction system for distracting two adjacent vertebrae comprising:

a) an introducer comprising a proximal insertion portion and a distal anchoring portion comprising a plurality of barbs; and

b) a plurality of deformable, spacing components;

where each spacing component has a central opening and a plurality of extensions; and

where each spacing component configured to stack onto the insertion portion of the introducer.

29. The method of claim 27, where the distraction system is a distraction system for distracting two adjacent vertebrae comprising:

a) a proximal connecting portion;

b) a distal distracting portion comprising a plurality of strips;

where each strip is deformable from an extended configuration to a curled configuration;

where each strip has a proximal end and a distal end;

where the proximal end of the strips are joined to the proximal connecting portion

connected at their proximal end to the proximal connecting portion.

30. The method of claim 27, where the distraction system is a distraction system for distracting two adjacent vertebrae comprising:

a) a barbed plug having a central axis and comprising a central portion and a plurality of barbs;

b) a ratchet device having a central axis and comprising a series of transversely separated strips connected at one end;

where the barbs extend outward from the axial center of the barbed plug when undeformed, and contract toward the axial center of the barbed plug when deformed;

where the strips uncoil away from the central axis of the ratchet device when undeformed, and contract toward the axial center of the ratchet device when deformed.

31. The method of claim 1, further comprising fusing the first vertebra to the second vertebra through the transpedicular access.

32. A method of fusing a first vertebra to a second vertebra comprising:

a) performing the method of claim 1;

b) fusing the first vertebra to the second vertebra through the transpedicular access; and

c) performing a second fusion procedure to fuse the first vertebra to the second vertebra.

33. The method of claim 1, further comprising removing, through the transpedicular access, at least part of a second intervertebral disk between the second vertebral body and a third vertebral body adjacent to the second vertebral body.